

## ABSTRACT

The present invention provides systems and methods for dynamically linking modules into a running operating system kernel. Systems and methods described herein have the following advantages: (1) they permit an application programmer to write, compile, execute, and terminate application code that is to be loaded into a kernel as if the application code was an ordinary application program, (2) they allow a standard programming environment to be used to encapsulate application software in a familiar environment, and (3) they permit automatic cleanup of errors and freeing of program resources when the application terminates.